Reply to Office Action of February 22, 2007

REMARKS

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In view of the above amendment, Applicants believe the pending application is in

condition for allowance.

Claims 1-5 and 7-10 are now present in this application. Claim 1 is independent.

Amendments have been made to the claims 1, 2, 5 and 9. Claim 6 has been cancelled.

Reconsideration of this application, as amended, is respectfully requested.

Priority Under 35 U.S.C. § 119

Applicants thank the Examiner for acknowledging Applicants' claim for foreign priority

under 35 U.S.C. § 119, and receipt of the certified priority document.

**Information Disclosure Citation** 

Applicants thank the Examiner for considering the references supplied with the

Information Disclosure Statement filed August 2, 2006, and for providing Applicants with an

initialed copy of the PTO-SB08 form filed therewith.

**Drawings** 

Applicants thank the Examiner for indicating that the drawings are accepted.

Claim Objections

The Examiner has objected to claim 9 because of informalities. In order to overcome this

objection, Applicants have amended claims 9 in order to correct the deficiencies pointed out by

the Examiner. Reconsideration and withdrawal of this objection are respectfully requested.

Rejections under 35 U.S.C. §103

Claims 1 and 2 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Park in

view of Sproul. Claims 3 and 4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over

Park in view of Sproul and in further view of Dickerson. Claims 5-8 stand rejected under 35 U.S.C.

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§ 103(a) as being unpatentable over Park in view of Sproul and further in view of Bloch. Claims 9 and 10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Park in view of Sproul and Bloch and further in view of Taylor-McClune. These rejections are respectfully traversed.

Complete discussions of the Examiner's rejections are set forth in the Office Action, and are not being repeated here.

While not conceding the appropriateness of the Examiner's rejection, but merely to advance prosecution of the instant application, Applicants respectfully submit that independent claim 1 has been amended to recite a combination of elements in a suction valve assembly including a suction valve body, and a suction valve "provided with a slot at a center thereof for inserting a hinge pin so that the valve supporting body can be hinge-coupled, and wherein the slot has a certain distance that the hinge pin is slidingly-moved so that the suction valve can be linearly-moved within a certain range". Applicants respectfully submit that this combination of elements as set forth in independent claim 1 is not disclosed or made obvious by the applied prior art.

Applicants respectfully submit that the present invention as claimed in amended claim 1 recites the subject matter that a suction valve assembly of a reciprocating compressor comprises a valve supporting body and a suction valve mounted at the valve supporting body to be rotatable. The suction valve is provided with a slot at a center thereof for inserting a hinge pin so that the valve supporting body can be hinge-coupled, and the slot has a certain distance that the hinge pin is slidingly-moved so that the suction valve can be linearly-moved within a certain range.

According to the claimed invention, a valve supporting body and a suction valve are coupled to each other by a hinge pin at each central portion thereof, thereby accelerating an open/close speed due to a short moment arm. Also, the suction valve is rotated on the basis of the slot into which the hinge pin has been inserted and is linearly-moved along the slot. According to this, even if the suction valve performs the open/close operation continuously, a transformation or a damage due to fatigue can be prevented, thus enhancing the reliability of the product.

In contrast, the configurations taught by Park are different from the teachings disclosed in the presently claimed invention because Park fails to show the technical feature that a suction valve assembly of a reciprocating compressor comprises a valve supporting body and a suction valve mounted at the valve supporting body to be rotatable. Park merely shows a suction valve 20 formed with a supporter 21 and a switching portion 22. The switching portion 22 is extended from one side of the supporter 21 to the center of the supporter 21, and is bent by the suction pressure. Accordingly, the features of Park are different from the present invention with respect to the structure, and therefore, the features of Park cannot achieve the effect of the present invention.

Further, the configurations taught by Sproul are different from the teachings disclosed in the presently claimed invention because Sproul fails to show the technical feature that a suction valve is provided with a slot at a certain distance so that the suction valve can be linearly-moved within a certain range. Sproul merely shows a valve closure element 50 coupled with a valve seat 70 by a hinge assembly 52. However, an open/close speed of the valve closure element 50 is slow due to a long moment arm, and has a problem of the refrigerant leakage. Accordingly, the features of Sproul are different from the present invention with respect to the structure, and therefor, the features of Sproul cannot achieve the effect of the present invention.

Applicants respectfully submit that the combination of elements as set forth in independent claim 1 is not disclosed or made obvious by the prior art of record, including Park and Sproul for the reasons explained above. Accordingly, reconsideration and withdrawal of these rejections are respectfully requested.

With regard to dependent claims 2-5 and 7-10, Applicants submit that claims 2-5 and 7-10 depend, either directly or indirectly, from independent claim 1 which is allowable for the reasons set forth above, and therefore claims 2-5 and 7-10 are allowable based on their dependence from claim 1. Reconsideration and allowance thereof are respectfully requested.

## Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

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If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone James T. Eller, Jr., Registration No. 39,538, at (703) 205-8000, in the Washington, D.C. area.

Prompt and favorable consideration of this Amendment is respectfully requested.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated: May 22, 2007 Respectfully submitted,

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